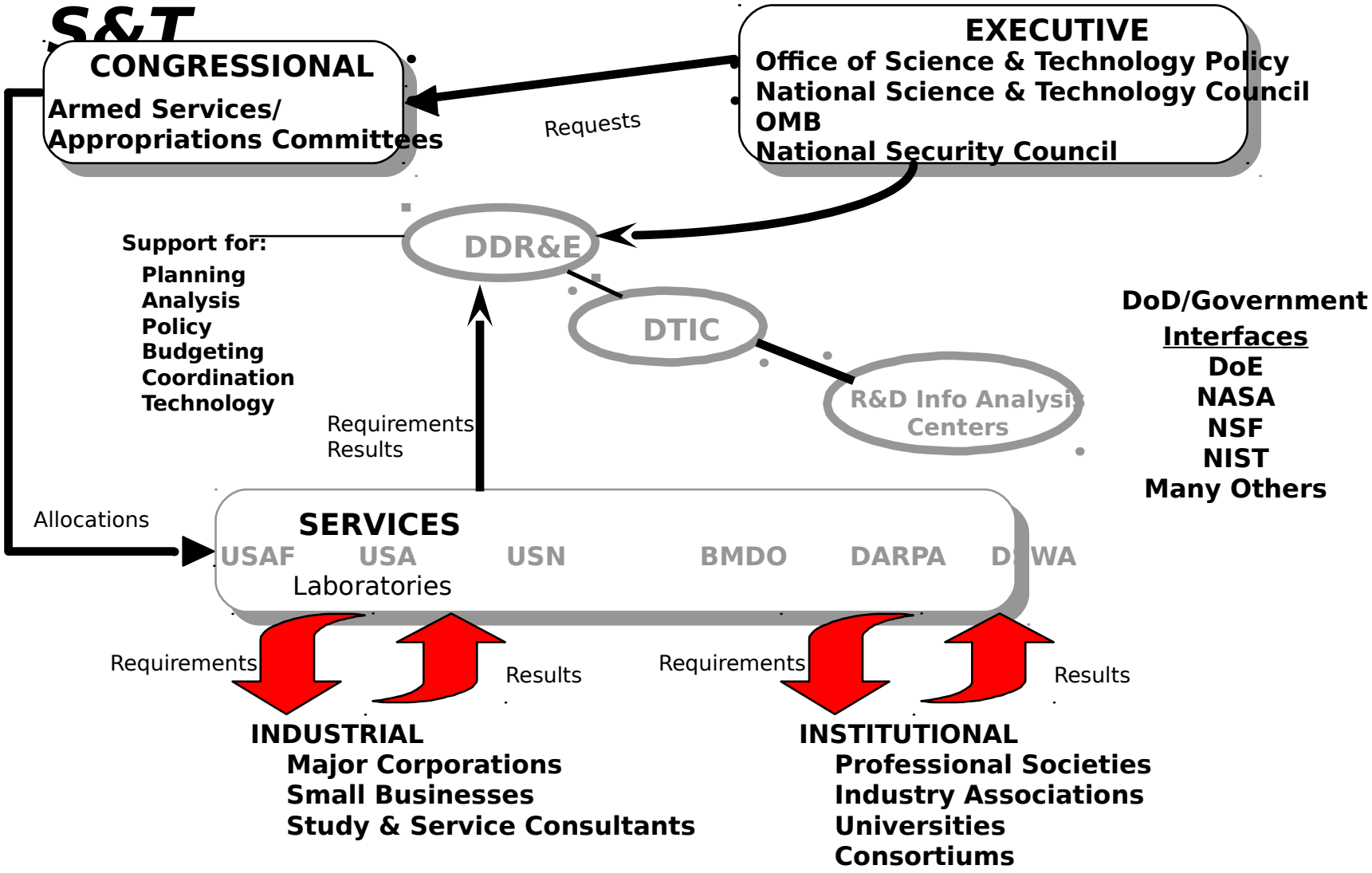
WUIS Feasibility Study Agenda

- **Background / Approach**
- **Major Issues / Findings**
  - **Interviews/User/Contributor Questionnaires**
  - **Current Process Analysis**
  - **Benchmarking**
  - **Requirements Workshop**
- **Potential Improvements / Recommen**
- **What's Next**

The Realm of DoD S&T



Feasibility Study Objective

To measure the value that WUIS is providing today; then

compare this to the cost of realizing the "potential value"

of WUIS as defined by the S&T Community.

Feasibility Study Approach

- **Five Data Gathering Activities**
  - **User, Contributor and EWG Questionnaires**
  - **Stakeholder Interviews**
  - **Current Process Modeling**
  - **Benchmarking**
  - **Requirements Workshop**

Interviews and User/Contributor Questionnaires

Major Issues Cited:

- **Provide Internet/Info Web Search Capabilities**
- **Improve the Quality and Completeness of the Data**
- **Make it Easier for Contributors to Supply Data to WUIS**
- **Improve the Registration process**
- **Make WUIS a Priority Throughout the S&T Community**
- **Market and Educate the S&T Community About the Benefits of WUIS**

Current Process Analysis

Major Findings:

- **Tie WUIS reporting to a financial / procurement / execution process**

  allows for qualitative accuracy
  measurement for quantitative completeness

- **Mandatory DoD standard data requirements**

  ensures qualitative completeness

- **Automate process**

  eliminate duplicative entry of data
  eliminate labor intensive manual processes
  validation controls

Current Process

- Air Force (Phillips Lab)
  - Creation of WUIS records tied to an MIS (FAST)
  - Investments in STINT have improved WUIS data collection and submission process
    - duplicative entry eliminated between FAST and STINT
    - full electronic interface with DTIC (Internet supported not WEB based)
  - "Accuracy" of submission tied to STINT input/validation controls
    - automatic 6-month review cycle notification
  - "Quantitative completeness" tied to MIS system
  - STINT is being made available to any organization who wants it

Current Process

- **Navy (ONR)**
  - **Creation of WUIS records tied to a procurement process and MIS (INRIS)**

    WUIS related data required prior to procurement awar
  - **Duplicative data entry eliminated**
  - **“Accuracy” of submission to user input/validation controls**

    automatic 9-month review cycle notification
  - **“Quantitative completeness” tied to MIS system**
  - **Non-electronic interface to DTIC - floppy for submission**

Current Process

- **Army (Redstone Arsenal)**
  - **Labor intensive, manual process supported by PC WUIS**
- **BMDO**
  - **Labor intensive, mostly manual process supported by PC "Quantitative completeness" tied to financial system.**
- **DARPA**
  - **Labor intensive, mostly manual process supported by PC**

Benchmarking

Major Findings:

- **Government Participants: NIH, DoE**
  - **Capture and track all R&D projects**
  - **Strong link between R&D tracking system to FMS ensures accurate data**
  - **Provide public access to selected data via the Internet**

- **Industry Participants: IBM Research, General Electric, Raytheon TI Systems**
  - **Limited tracking using COTS**
    monitor technical and schedule problems
    track R&D achievements and their contributions to to corporate goals

Requirements Workshop

- **Purpose:** **Solicit S&T functional experts' views regarding WUIS requirements and alternative courses of action**

- **16 participants designated by the EWG and S&T BPR Office**

- **2-day workshop utilizing facilitation and Groupware**

Requirements Workshop

Major Findings:

Evaluated 3 WUIS alternatives:

- Eliminate
- Keep As-Is
- Reengineer

- **Ranked "Reengineer WUIS" as the preferred alternative by a wide margin (9 to 4)**

"We should keep the concept of WUIS, change the technology, use the Internet, streamline the data and the input, merge it with other information sources, make the data more reliable, and usable by a large customer/user base…."

Requirements Workshop

- **Preferred “Keep WUIS” to “Eliminate WUIS” (8 to 6)**
- **S&T organizations collect WUIS type data for their own pu and would continue to collect data if WUIS were eliminate**
- **Real impact from loss of WUIS would be the inability to co *unwanted* duplication of effort**
- **Identified 3 new WUIS objectives**
- **Redefined the WUIS purpose**
- **Identified and validated data requirements meet the new WUIS objectives**

Summary of Core Issues
Symptoms/Related Problems

- **WUIS Ineffective as a Tool to Avoid Unnecessary Duplicati**

  - **Search conducted simply to satisfy DoD regulation to sho of search**
  - **WUIS perceived by contributing organizations as difficul**
    - **Registration process seen as too difficult and time cons**
    - **User interface cumbersome requiring extensive trainin**
  - **WUIS perceived as providing very little value to submittin agency**
  - **Downsizing, restructuring, and information technology ch way the S&T community works**

Requirements Workshop
Summary of Core Issues - Symptoms/Related Problems

- **WUIS Reporting Not a Priority to Most Organizations**

  - **No "Champion" for WUIS**
  - **Organizations not held accountable for submitting WUIS records**
  - **Process for Creating WUIS records is disjointed, labor-intensive requiring duplicate data entry into stand-alone systems**
  - **No mechanisms in place to ensure complete, accurate and timely data**
  - **Current/funded studies not being reported**
  - **Entire S&T Community does not participate**

Requirements Workshop
Summary of Core Issues - Symptoms/Related Problems

- **DTIC's Product & Services Not in Line with Stakeholder n**
  - **11 of 120 data fields required for DTIC to accept a recor**
  - **Processing within DTIC is disjointed and uses legacy tec**
  - **Processing of WUIS records geared toward meeting inte that produce little value for the S&T community**
  - **Biweekly validation and processing cycle**

Requirements Workshop
Summary of Core Issues - Symptoms/Related Problems

- **WUIS Ineffective as an Awareness Tool for the S&T Comm**
  - **Perception of incomplete and inaccurate data limit usef discourage use**
  - **WUIS not a relational database and cannot be manipula hoc queries**
  - **Access curtailed by registration process, fees, hardware, interface**
  - **Limited Internet, no Siprnet access due to technology a constraints**
  - **Few public domain records available because of distribu restrictions that may not be necessary**

Potential Improvements/Recommenda

Improvements focus on organizational commitment, process changes, and enabling technology to realize the "potential" value of WUIS

- **Designate a WUIS "*Champion*" to assume responsibility for reengineering WUIS**

  High level S&T executive who has a clear vision of WUIS, accepts responsibility for its quality and has the authority and resources to implement change

  - **data is a corporate asset**
  - **use the data for management and awareness**
  - **support basic costs for doing business (dollars, people, technology, etc.)**

Core Issue: WUIS Reporting Not a Priority to Most Organizations

Potential Improvements/Recommendations

- **Establish & link S&T and DTIC Strategic Plans, Goals, an**

  Opportunity to link WUIS to RDDS (PE/Project) annual of DTOs and the conduct of TARAs, could be supporte

  Opportunity for DTIC to invest in process and technolog improvements that are linked to the S&T goals and objectives

  Strategic planning processes will allow the S&T commu develop performance requirements and measurements

Core Issue: WUIS Reporting Not a Priority to Most Organi

DTIC's Product & Services not in Line with Stake Needs

Potential Improvements/Recommendations

- **Establish policies for certification of compliance and cons for non-compliance**

  A revised DoD directive outlining "ownership" of respon with enforcement "teeth" to produce a more complete

  Implement a certification requirement - Commanders s yearly certifications on percentage of work (dollars) re during that year

Core Issue: WUIS Reporting Not a Priority to Most Organ

Potential Improvements/Recommendations

- **Link the creation of WUIS records to the procurement/exec**

  The current process analysis and benchmarking conveyed if you want to accurately track individual research effort the process to the procurement/execution process

  - **acquisition documentation requirement**
  - **deliverable to funding/tasking documentation**

Core Issue: WUIS Reporting Not a Priority to Most Organiza

Potential Improvements/Recommendations

- **Implement data requirements redefined and validated dur WUIS requirements workshop**

  Data requirements support
  - **awareness**
  - **management**
  - **technology transfer objectives**
  - **links to DTAPs and DTOs**
  - **searches**

- **Implement requirement that submissions be written Uncla Unlimited so 95% of WUIS data is available for public relea**

Core Issue: WUIS Ineffective as a Tool to Avoid Unnecessary Duplication

WUIS Ineffective as an Awareness Tool for the S Community

Potential Improvements/Recommendations

- **Functionality Improvements**

  user friendly interface
  integrate/consolidate WUIS, DTTIS, IR&D
  unified operations (create, read, write, delete, update, and
  ad hoc query (sort, analyze and manipulate data)
  Internet/WEB implementation/encryption
  Internet/Web user account management

Core Issue: WUIS Ineffective as a Tool to Avoid Unnecessary Duplication

WUIS Ineffective as an Awareness Tool for the S Community

DTIC's Product & Services not in Line with Stak Needs

What’s Next?

Go / No Go decision and further direction from EWG

- Feasibility Study will be presented to the EWG on 12 December 1997

?